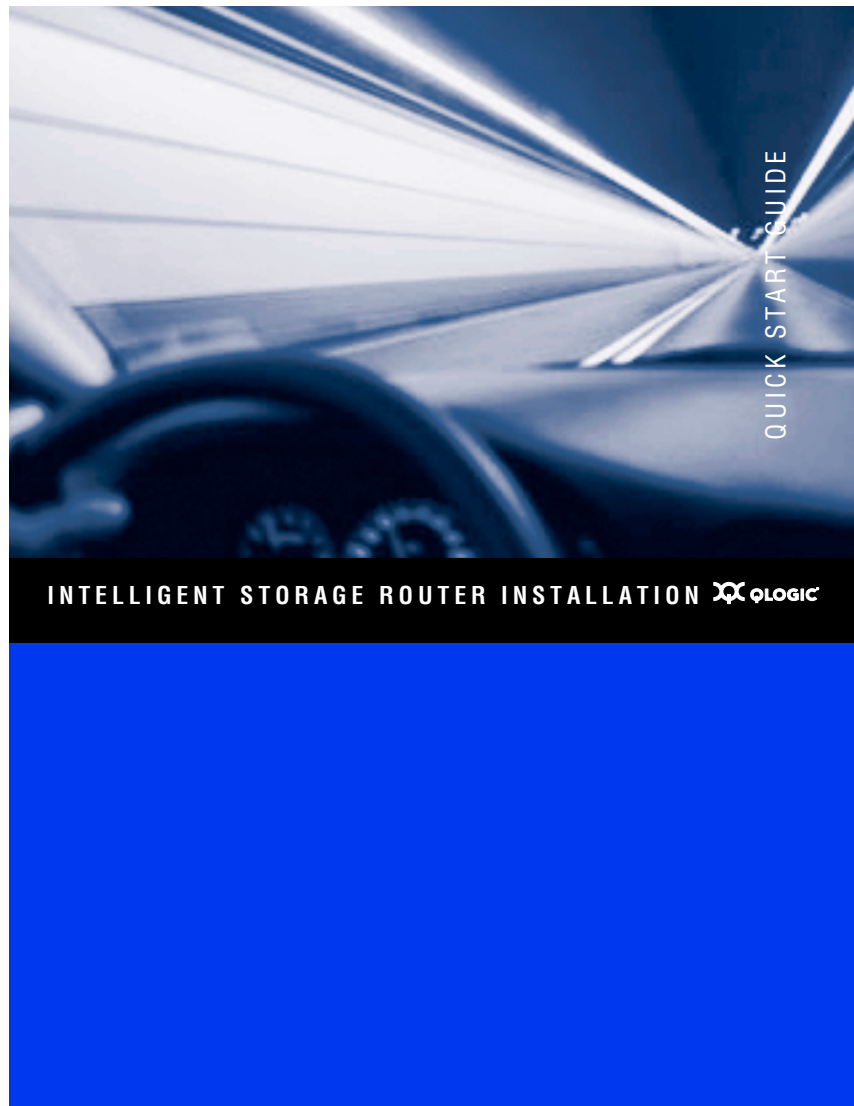


# [ Quick Start Guide ]



INTELLIGENT STORAGE ROUTER INSTALLATION  QLOGIC

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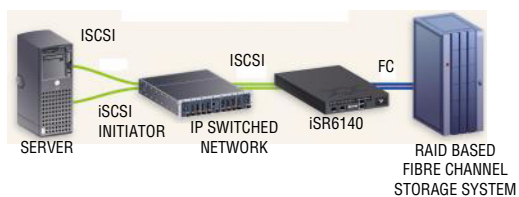
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## Quick Start Guide

The iSR6140 is an intelligent storage router that provides servers with iSCSI connectivity to SAN-attached Fibre Channel-based disk or tape storage.

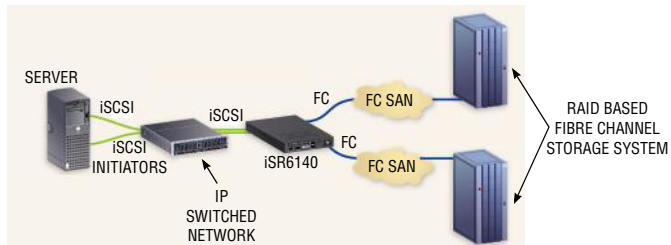
### Suggested Configurations

Figure 1 shows the iSR6140 connecting iSCSI servers to a direct-attached storage array.



**Figure 1. iSR6140 in Direct Attach Configuration**

Figure 2 shows the iSR6140 connecting iSCSI servers to a SAN-attached array.



**Figure 2. iSR6140 in SAN-Attach Configuration**

---

## Installation Instructions

This Quick Start Guide describes how to install and configure your new QLogic iSR6140 Router by following these steps:

- Step 1. Verify the package contents.
- Step 2. Complete the pre-installation checklist.
- Step 3. Mount the router.
- Step 4. Install the SFPs.
- Step 5. Apply power to the iSR6140 router.
- Step 6. Install the SANsurfer<sup>®</sup> Router Manager.
- Step 7. Configure iSR6140 management port IP address.
- Step 8. Run the configuration wizard.
- Step 9. Present LUNs to iSCSI initiators.

### Step 1. Verify the Package Contents

The QLogic iSR6140 Router is shipped with the following items:

- iSR6140 Router (1)
- Small Form Factor Pluggable (SFP) transceivers (2)
- AC power cord (1), CD (1), and serial adapter (1)

Optional equipment:

- Shelf for rack mount

### Step 2. Complete the Pre-installation Checklist

During the initial configuration process, the system prompts you to enter the following parameters. Use the space provided to record the IP addresses.

Symbolic Name of this iSR6140	
Management port IP address, subnet mask, and gateway (if not using DHCP)	
iSCSI port 1 IP address, subnet mask, and gateway (GE-1)	
iSCSI port 1 iSN IP address (GE-1)	
iSCSI port 2 IP address, subnet mask, and gateway (GE-2)	
iSCSI port 2 iSNS IP address (GE-2)	

---

### Step 3. Mount the Router

Place the router on a flat surface or mount it in a standard 19-inch Electronic Industries Association (EIA) rack.

### Step 4. Install the SFPs

An SFP transceiver is required for each router port that will be connected to a Fibre Channel device or switch. SFPs are included in the package. If you'd prefer to use different SFP transceivers from the ones provided, purchase one of the following QLogic recommended transceivers:

- Finisar
- JDS Uniphase

To install an SFP transceiver, insert the transceiver into the router port and press gently until it snaps in place. The transceiver will fit only one way. If the transceiver does not install under gentle pressure, flip it over and try again.

### Step 5. Apply Power to the iSR6140 Router

Figure 3 shows the location of the ports and LEDs on the iSR6140 router that are referenced in the following instructions.

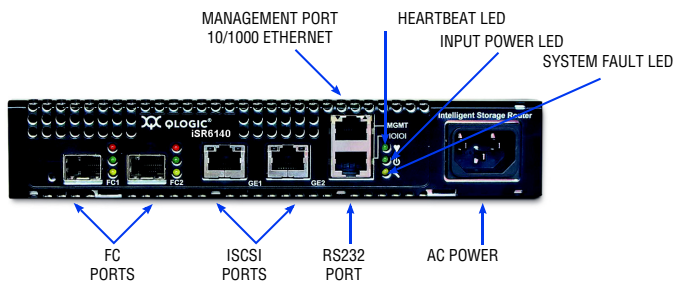


Figure 3. iSR6140 Ports and LEDs

1. Attach the AC power cord to the iSR6140 router and then to the wall outlet or power strip.
2. Verify that the router's input power LED is illuminated. The iSR6140 router runs its self test and begins normal operation—this may take a minute.
3. Verify that the heartbeat LED is blinking (once per second) and that the system fault LED is not illuminated.

For installation details, diagnostics, and troubleshooting, see the *iSR6140 Intelligent Storage Router Installation Guide*.

---

## Step 6. Install the SANsurfer Router Manager

Perform the following steps to install the SANsurfer iSCSI/FC Router Manager application from the QLogic website to a PC workstation:

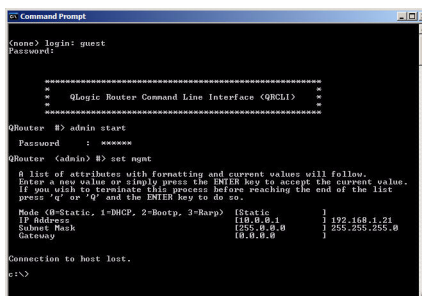
1. Close all programs currently running.
2. Go to the QLogic download site:  
[http://support.qlogic.com/support/drivers\\_software.aspx](http://support.qlogic.com/support/drivers_software.aspx)
3. Select the **Intelligent Storage Routers** icon.
4. Select **iSR6140** in the product selection window and click **Go**.
5. Under the product name column, select the link to the SANsurfer Router Manager for your operating system.
6. Read the license agreement and click **Agree**.
7. Follow the system prompts to uncompress and install the application.

## Step 7. Configure iSR6140 Management Port IP Address

Connect the router's 10/100 Ethernet port to your workstation using a switch or hub. Alternatively you may connect your workstation directly to the router using an Ethernet crossover cable.

The iSR6140 management port's default IP address is 10.0.0.1 subnet 255.0.0.0. Make sure the workstation connected to the iSR6140 router has Ethernet address 10.0.0.x, where x is other than 1 and subnet mask is 255.0.0.0.

From the workstation, open a command window and using a telnet session connect to iSR6140 using IP address 10.0.0.1. Login as "guest" and use the password "password." This will take you to a CLI prompt as shown in [Figure 4](#).



```
Command Prompt
(c:\>) telnet 10.0.0.1
Password: password
=====
#
# QLogic Router Command Line Interface (QRCCLI)
#
=====
QRouter #> admin start
Password : *****
QRouter (admin) #> set mgmt
# List of attributes with formatting and current values will follow.
# Enter a new value or simply press the ENTER key to accept the current value.
# If you wish to terminate this process before reaching the end of the list
# press 'q' or 'Q' and the ENTER key to do so.
Mode (0=Static, 1=DMCP, 2=Bootp, 3=Rarp) (Static) |
IP Address (10.0.0.1) (10.0.0.1) |
Subnet Mask (255.0.0.0) (255.0.0.0) |
Gateway (0.0.0.0) (0.0.0.0) |
Connection to host lost.
c:\>
```

*Figure 4. QLogic Router Command Line Interface*

Enter the CLI command `admin start`. The default password is "config." Enter the `set mgmt` command at the `QRouter (admin) #>` prompt.

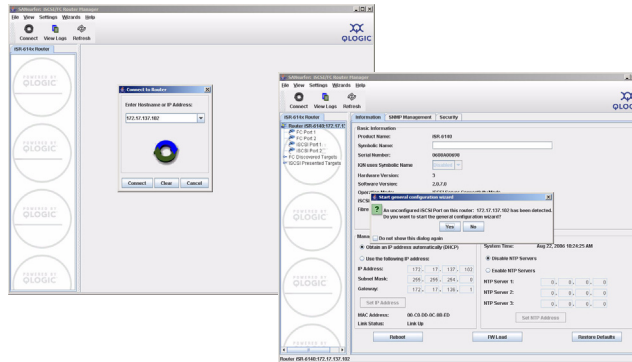
Select the mode. We recommend you use static address. Select `Option 0` and enter the IP address, subnet information, and gateway, if applicable.

You will lose the connectivity of the telnet session at this time. If you want to continue using the CLI, restart the telnet session with the IP address you just assigned to the management port.

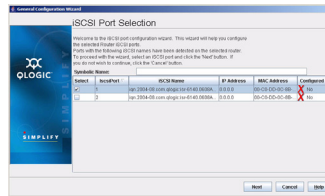
You now have the management port configured with the appropriate IP address. Connect the management port cable to your Ethernet network. Connect GE1, GE2, FC 1, and FC 2 cables as shown in the configuration diagrams (Figure 1/Figure 2).

## Step 8. Run the Configuration Wizard

1. Start the SANsurfer® Router manager previously installed on the computer that will be used to manage the iSR6140. You should see a display as shown in the following figures.
2. Click the **Connect** button on the top-left corner.
3. Enter the IP address of the iSR6140 you want to configure.



4. Click **Yes** to start the configuration wizard. The following screen appears:



5. Enter the **Symbolic Name** for this router.
6. Select each iSCSI port and use the wizard to enter IP addresses for the iSCSI Port, and optionally, the IP address of an iSNS server.
7. Save the changes; the default password is "config."
8. Copy the FC WWPN (World Wide Port Names) for both FC Ports. You will need these names to present LUNS from your Storage subsystem.

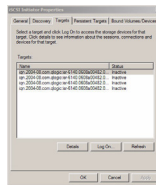
FC 1 WWPN	
FC 2 WWPN	

9. If you have an NTP server, enable the NTP Server and enter the NTP Server information. This is located on the Information tab that appears after you select the iSR6140 Router node in the System Tree view.

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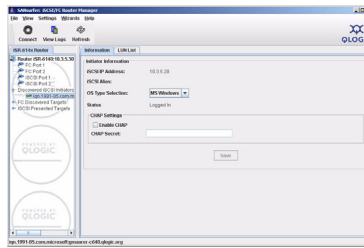
## Step 9. Present LUNs to iSCSI Initiators

1. If the iSR6140 is connected in the FC fabric, make sure the FC fabric zoning is set so that FC array ports and router FC ports are in the same zone.
2. Using array management software, create all LUNs you want to present to all iSCSI initiators through this iSR6140. Present the LUNs from FC array to iSR6140 using WWPNs of this iSR6140. If you are setting up a high availability configuration that uses two iSR6140s as a pair, present the LUNs to both iSR6140s using FC WWPNs of both iSR6140s.
3. Create the iSCSI initiator list in iSR6140 using one of the following methods:
  - Enter the iSCSI initiator name using the Add Initiator Wizard. The system prompts you to enter the iSCSI name of an initiator.
  - OR
  - From the server with iSCSI initiators, run a discovery session for the iSCSI Port IP address of the iSR6140. This will automatically register the iSCSI Initiator names with the iSR6140. Running iSCSI discovery session on different OS environments may vary. The example below illustrates how to run iSCSI discovery session on Windows Server:
    - a. Install an iSCSI initiator on your server. This can either be a dedicated iSCSI HBA or a software initiator for Windows like the one available from [www.microsoft.com](http://www.microsoft.com).
    - b. Invoke the software initiator, and then specify the IP address of the iSCSI port on your iSR6140. When you select the **Targets** tab, a screen appears, similar to the following:

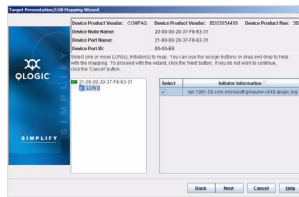




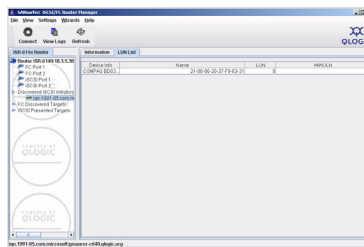
4. Present LUNs to iSCSI Initiator:
  - a. Click the **Refresh** button to refresh the SANsurfer display. The iSCSI initiator names should appear on the Discovered Initiators tab.
  - b. Run the LUN presentation Wizard to assign a LUN(s) to a server(s).



- c. Launch the Presentation Wizard from the Wizards drop-down menu. This wizard allows you to map a LUN to the iSCSI initiator on your server. The screen that allows this mapping looks as follows:



- d. Save the mappings using your management password.
  - e. Refresh the SANsurfer Router Manager display. Now, when you select your iSCSI initiator on the LHS of the display, you should be able to see the LUNs mapped to that initiator as follows:



- f. Return to the Windows Server screen and select **LogOn** to log on to this target. The status should change from **Inactive** to **Connected**.

***Congratulations! You have now successfully installed your QLogic iSR6140 and mapped target LUNs to iSCSI initiator on your server. Your server should see the Fibre Channel LUNs through the server's volume manager.***

---

## Troubleshooting and Technical Support

For technical support, visit our web site, [support.qlogic.com](http://support.qlogic.com), email us at [support@qlogic.com](mailto:support@qlogic.com), or call 952-932-4040.

## Warranty

The QLogic iSR6140 router comes with a standard one-year QLogic warranty, or as specified by other agreements. Check the QLogic Web site at [www.qlogic.com](http://www.qlogic.com) for warranty details.

## Regulatory Information (Preliminary)

The following sections contain a summary of EMC/EMI test specifications performed on the QLogic iSR6140 Router to comply with radiated emission, radiated immunity, and product safety standards.

### Safety Standards

UL60950 (USA)  
CSG 22.2 No. 60950 (Canada)  
EN 60950 (EC)  
CB Scheme-IEC 60950

### Harmonics

EN 61000-3-2

### Immunity

EN 55024:1998

### Emission Standards

FCC Part 15B Class A (USA)  
VCCI Class A ITE (Japan)  
ICES-03 Issue 3 (Canada)  
EN55022 Level A (EC)  
CISPR 22, Class A

### Voltage Fluctuations

EN61000-3-3

### Marking

FCC Part 15  
UL (United States)  
TUV (United States)  
cUL (Canada)  
cTUV (Canada)  
TUV Europe (Germany)  
VCCI  
CE  
GOST  
MIC  
BSMI/RRL

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